REMARKS

Reconsideration of this application, in view of the foregoing amendment and the following remarks, is respectfully requested.

Claims 1-61 were originally presented for consideration in this application. By the foregoing amendment, Claims 1-10, 14-18, 21-24, 26, 29, 31-38 and 41-43 have been cancelled without prejudice or disclaimer, and Claims 11, 13, 19, 20, 25, 27, 30, 39 and 40 have been rewritten in independent form. Accordingly, Claims 11-13, 19, 20, 25, 27, 28, 30, 39, 40 and 44-61 remain in this application for consideration and allowance.

Turning first to matters of form, Claims 11, 12, 27, 28, 50 and 51 currently stand rejected under 35 USC §112, second paragraph, as being indefinite for failing to particularly point and distinctly claim the subject matter which applicant regards as the invention. Specifically, the Examiner is questioning (1) what is meant by the phrase "the first optical coupler receiving separate optical wavelength bands from multiple tunable filters" in Claims 11, 27 and 50, and (2) what is meant by the phrase "each of the tunable filters receiving a relatively broad optical wavelength band from the second optical coupler in Claims 12, 28 and 51.

The subject matter set forth in applicant's Claims 11, 12, 27, 28, 50 and 51 is schematically set forth in FIG. 5, and is clearly described in applicant's specification, beginning on line 15 of page 9 thereof, wherein it is stated that:

> Referring additionally now to FIG. 5, a system 92 whereby multiple specific optical wavelength bands may be transmitted simultaneously through the fiber optic line 18 is representatively illustrated. The light source 32, which outputs a relatively broad optical wavelength band, is connected to an optical coupler 94, causing the laser output to be split and transmitted through multiple optical paths 96,98. Two of the optical paths 96,98 are depicted in FIG. 5, but is to be understood that any number of the paths may be used.

> Each of the optical paths 96,98 has a tunable or fixed wavelength filter 100,102 interconnected therein. The filters 100,102 may be independently tuned, or may be selected to pass desired optical wavelength bands, to thereby permit selected optical wavelength bands to pass therethrough. For example, the filter 100 may be tuned or selected to permit only the optical wavelength band λ_1 to pass therethrough, and the filter 102 may be tuned or selected to permit only the optical wavelength band λ_2 to pass therethrough. Of course, if additional optical paths are utilized, then additional optical filters may be used also.
>
> The outputs of the filters 100,102 are combined using an optical coupler 104. Thus, the output of the optical coupler 104 is a combination of the optical wavelength bands permitted to pass through the filters 100,102. This combination of optical wavelength bands is then amplified by the optional amplifier 36, if desired, and transmitted through the fiber optic line.

Thus, in Claims 11, 27 and 50 the recited first optical coupler is representatively the optical coupler 104 shown in FIG. 5, and the recited multiple tunable filters, from which the first optical coupler receives separate optical wavelength bands, are representatively the filters 100 and 102. In Claims 12, 28 and 50, the recited second optical coupler, from which each of the tunable filters receives a relatively broad optical wavelength band, is representatively the coupler 94 shown in FIG. 5.

It is thus respectfully submitted that Claims 11, 12, 27, 28, 50 and 51 particularly point out and distinctly claim the subject matter therein, and are accordingly not indefinite.

Turning now to the merits of applicant's claims, the following substantive claim rejections, which are respectfully traversed for reasons subsequently set forth herein, were made by the Examiner in the June 5, 2002 Office Action.

1. Claims 13, 19 and 20 stand rejected under 35 USC §102(b) as being anticipated by U.S. Patent 4,346,478 to Sichling;

2. Claims 11-13, 25, 27, 28 and 30 stand rejected under 35 USC §102(b) as being anticipated by U.S. Patent 6,038,357 to Pan;

3. Claims 44, 48, 49, 52, 53 and 56-61 stand rejected under 35 USC §103(a) as being unpatentable over U.S. Patent 6,271,766 to Didden et al;

4. Claims 11 and 12 stand rejected under 35 USC §103(a) as being unpatentable over Sichling in view of U.S. Patent 4,182,935 to Chown;

5. Claims 19, 20, 39 and 40 stand rejected under 35 USC §103(a) as being unpatentable over Pan in view of U.S. Patent 4,495,935 to Endo et al;

6. Claims 45-47 stand rejected under 35 USC §103(a) as being unpatentable over Didden et al in view of U.S. Patent 6,115,156 to Otani et al;

7. Claim 50 stands rejected under 35 USC §103(a) as being unpatentable over Didden et al in view of Chown; and

8. Claims 54 and 55 stand rejected under 35 USC §103(a) as being unpatentable over Didden et al in view of Sichling.

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THE ANTICIPATION REJECTION OF CLAIMS 13, 19 AND 20 BASED ON U.S. PATENT 4,346,478 TO SICHLING

Each of applicant's Claims 13, 19 and 20 specifies the transmission of multiple optical wavelength bands through a fiber optic cable and the use of the different wavelength bands to select various power consuming devices. Sichling does not disclose this claimed use of various optical wavelength bands. Instead, Sichling utilizes **address codes** (see FIG. 6) to select which of multiple sensors is to be operated. Accordingly, none of applicant's Claims 13, 19 and 20 is anticipated by Sichling.

THE ANTICIPATION REJECTION OF CLAIMS 11-13, 25, 27, 28 AND 30 BASED ON U.S. PATENT 6,038,357 TO PAN

Each of applicant's Claims 11-13, 27 and 28 recites, in method or apparatus terminology as the case may be, an **optical coupler** interconnected to a fiber optic line and **receiving separate optical wavelength bands from multiple tunable filters**. Claim 25 specifies an electrical power distribution system in which multiple optical wavelength bands are transmitted **singly** through a fiber optic line. Claim 30 specifies an electrical power distribution system in which an optical coupler receives separate optical wavelength bands from multiple **lasers**, at least one of the multiple lasers being a **tunable laser**.

None of these claimed features of applicant's invention is disclosed in Pan. Accordingly, none of applicant's Claims 11-13, 25, 27, 28 and 30 is anticipated by Pan.

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THE OBVIOUSNESS REJECTION OF CLAIMS 44, 48, 49, 52, 53 AND 56-61 BASED ON U.S. PATENT 6,271,766 TO DIDDEN et al

Via independent Claim 44, each of applicant's Claims 44, 48, 49, 52, 53 and 56-61 specifies the distribution of electrical power via selective optical wavelength transmission through a fiber optic line. Specifically, each of these claims recites that each of the specified control modules is responsive to one of **multiple** optical wavelength bands transmitted through the fiber optic line to cause light to be transmitted to the respective opto-electric converter and thereby cause electrical power to be supplied to the respective well tool.

In contrast, Didden et al fails to teach or in any manner suggest this claimed **electrical power distribution** via **selective optical wavelength transmission through a fiber optic line**. Accordingly, none of applicant's Claims 44, 48, 49, 52, 53 and 56-61 is rendered obvious by Didden et al.

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THE OBVIOUSNESS REJECTION OF CLAIMS 11 AND 12 BASED ON SICHLING IN VIEW OF U.S. PATENT 4,182,935 TO CHOWN

Via independent Claim 1, each of applicant's Claims 11 and 12 specifies the transmission of multiple optical wavelength bands through a fiber optic cable and the use of the different wavelength bands to select various power consuming devices. Sichling does not disclose or suggest this claimed use of various optical wavelength bands. Instead, Sichling utilizes **address codes** (see FIG. 6) to select which of multiple sensors is to be operated. Additionally, Claims 11 and 12 specify the interconnection of an optical coupler to a fiber optic line, with the optical coupler receiving separate optical wavelength bands from multiple tunable filters. This claimed feature of applicant's invention is also not disclosed or suggested in Sichling.

These deficiencies in Sichling are clearly not cured by the Chown reference which similarly does not teach or in any manner suggest the transmission of multiple optical wavelength bands through a fiber optic cable and the use of the different wavelength bands to select various power consuming devices. It is thus respectfully submitted that neither of applicant's Claims 11 and 12 is rendered obvious by the Sichling and Chown references, whether these two references are considered singly or in any combination thereof.

THE OBVIOUSNESS REJECTION OF CLAIMS 19, 20, 39 AND 40 BASED ON PAN IN VIEW OF U.S. PATENT 4,495,421 TO ENDO

Claims 19 and 39 specify that the recited power consuming devices are **data storage devices**, and that data transmitted through a fiber optic line is **stored** in selected ones of the data storage devices. There is no disclosure or suggestion in either of the Pan and Endo references of this claimed feature of applicant's invention. In this regard it should be noted that, contrary to the Examiner's statement in the June 5, 2002 Office Action, this claimed feature is **not** disclosed or suggested in column 1, lines 7-28, or column 2, lines 31-37 of Endo. Accordingly, neither of applicant's Claims 19 and 39 are rendered obvious by Pan and Endo, whether these two references are considered singly or in any combination thereof.

Claims 20 and 40 specify that the recited power consuming devices are devices having programmed functions, and wherein in the transmitting step, the functions are performed **in response to the supplying of electrical power to the corresponding selected ones of the devices**. These claimed features are neither disclosed or in any manner suggested in either of the Pan and Endo references. In this regard it should be noted that, contrary to the Examiner's statement in the June 5, 2002 Office Action, column 1, lines 50-54 of Endo does **not** disclose or suggest these claimed features. All that is disclosed in this portion of the Endo specification is that the subject switching apparatus is designed to turn electric appliances (such as a radio) on or off without generating electromagnetic noise.

The switching or a radio on or off is **not** causing the radio to perform a **programmed function** of the radio. It is thus respectfully submitted that neither of applicant's Claims 20 and 40 is rendered obvious by Pan and Endo, whether these two references are considered singly or in any combination thereof.

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THE OBVIOUSNESS REJECTION OF CLAIMS 45-47 BASED ON DIDDEN et al IN VIEW OF U.S. PATENT 6,115,156 TO OTANI et al

Via independent Claim 44 previously discussed herein, each of applicant's Claims 45-47 specifies the distribution of electrical power via selective optical wavelength transmission through a fiber optic line. Specifically, each of these claims recites that each of the specified control modules is responsive to one of **multiple** optical wavelength bands transmitted through the fiber optic line to cause light to be transmitted to the respective opto-electric converter and thereby cause electrical power to be supplied to the respective well tool.

In contrast, Didden et al fails to teach or in any manner suggest this claimed **electrical power distribution** via **selective optical wavelength transmission through a fiber optic line**. Otani fails to cure this deficiency of Didden et al, having been cited by the Examiner solely for its alleged teachings with respect to a WDM demultiplexer and a Bragg grating.

It is thus respectfully submitted that none of applicant's Claims 45-47 is rendered obvious by the Didden et al and Otani references, whether these two references are considered singly or in any combination thereof.

THE OBVIOUSNESS REJECTION OF CLAIM 50 BASED ON DIDDEN et al IN VIEW OF CHOWN

Via independent Claim 44, Claim 50 specifies the distribution of electrical power via selective optical wavelength transmission through a fiber optic line, with each of the recited control modules being responsive to one of multiple optical wavelength bands transmitted through the fiber optic line to cause light to be transmitted to the respective opto-electric converter and thereby cause electrical power to be supplied to the respective well tool. These limitations are neither disclosed or in any manner suggested in Didden et al. This deficiency in Didden et al is in no manner cured by Chown which also fails to disclose or in any manner suggest these claimed features of applicant's invention. It is thus respectfully submitted that Claim 50 is not rendered obvious by Didden et al and Chown, whether these two references are considered singly or in any combination thereof.

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THE OBVIOUSNESS REJECTION OF CLAIMS 54 AND 55 BASED ON DIDDEN et al IN VIEW OF SICHLING

Via independent Claim 44, each of applicant's Claims 54 and 55 specifies the distribution of electrical power via selective optical wavelength transmission through a fiber optic line. Specifically, each of these claims recites that each of the specified control modules is responsive to one of **multiple** optical wavelength bands transmitted through the fiber optic line to cause light to be transmitted to the respective opto-electric converter and thereby cause electrical power to be supplied to the respective well tool.

In contrast, as previously discussed herein, Didden et al fails to teach or in any manner suggest this claimed **electrical power distribution** via **selective optical wavelength transmission through a fiber optic line**.

Similarly, as also previously discussed herein, Sichling fails to disclose or in any manner suggest the use of variously wavelength bands, and instead utilized **address codes** (see FIG. 6) to select which of multiple sensors are to be operated.

It is thus respectfully submitted that neither of applicant's Claims 54 and 55 is rendered obvious by Didden et al and Sichling, whether these two references are considered singly or in any combination thereof.

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In view of the foregoing amendment and remarks, all of the claims currently pending in this application are now seen to be in a condition for allowance. A Notice of Allowance of Claims 11-13, 19, 20, 25, 27, 28, 30, 39, 40 and 44-61 is therefore earnestly solicited.

Finally, in reviewing this file it was noted that the Examiner has not yet completed and returned to applicant the form PTO/SB/08A filed with applicant's February 20, 2002 Information Disclosure Statement. Completion and return to applicant of this Information Disclosure Statement form by the Examiner is thus respectfully requested.

VERSION WITH MARKINGS TO SHOW CHANGES MADE

Set forth below are Claims 11, 13, 19, 20, 25, 27, 30, 39 and 40 which have been appropriately marked to show the changes made therein in the foregoing amendment.

****

11. (Amended) [The method according to Claim 10, wherein] A method of providing electrical power to multiple power consuming devices, the method comprising the steps of:

interconnecting each of the power consuming devices to a fiber optic line, so that each of the power consuming devices is selectable for operation thereof by transmitting one of multiple optical wavelength bands through the fiber optic line, and wherein each of the transmitted optical wavelength bands causes a respective at least one of the power consuming devices to be selected; and

transmitting various of the optical wavelength bands through the fiber optic line, thereby supplying electrical power to corresponding selected ones of the power consuming devices,

the transmitting step further comprising simultaneously transmitting multiple ones of the optical wavelength bands through the fiber optic line, thereby selecting corresponding multiple ones of the power consuming devices for operation thereof,

the multiple optical wavelength bands [are] being transmitted through the fiber optic line by interconnecting a first optical coupler to the fiber optic line, the first optical coupler receiving separate optical wavelength bands from multiple tunable filters.

13. (Amended) [The method according to Claim 10, wherein] A method of providing electrical power to multiple power consuming devices, the method comprising the steps of:

interconnecting each of the power consuming devices to a fiber optic line, so that each of the power consuming devices is selectable for operation thereof by transmitting one of multiple optical wavelength bands through the fiber optic line, and wherein each of the transmitted optical wavelength bands causes a respective at least one of the power consuming devices to be selected; and

transmitting various of the optical wavelength bands through the fiber optic line, thereby supplying electrical power to corresponding selected ones of the power consuming devices,

the transmitting step further comprising simultaneously transmitting multiple ones of the optical wavelength bands through the fiber optic line, thereby selecting corresponding multiple ones of the power consuming devices for operation thereof,

the multiple optical wavelength bands [are] being transmitted through the fiber optic line by interconnecting an optical coupler to the fiber optic line, the optical coupler receiving separate optical wavelength bands from respective multiple tunable lasers.

19. (Amended) [The method according to Claim 1, wherein] A method of providing electrical power to multiple power consuming devices, the method comprising the steps of:

interconnecting each of the power consuming devices to a fiber optic line, so that each of the power consuming devices is selectable for operation thereof by transmitting one of multiple optical wavelength bands through the fiber optic line, and wherein each of the transmitted

optical wavelength bands causes a respective at least one of the power consuming devices to be selected; and

transmitting various of the optical wavelength bands through the fiber optic line, thereby supplying electrical power to corresponding selected ones of the power consuming devices,

the power consuming devices [are] being data storage devices, and wherein in the transmitting step, data transmitted through the fiber optic line is stored in corresponding selected ones of the data storage devices.

20. (Amended) [The method according to Claim 1, wherein] A method of providing electrical power to multiple power consuming devices, the method comprising the steps of:

interconnecting each of the power consuming devices to a fiber optic line, so that each of the power consuming devices is selectable for operation thereof by transmitting one of multiple optical wavelength bands through the fiber optic line, and wherein each of the transmitted optical wavelength bands causes a respective at least one of the power consuming devices to be selected; and

transmitting various of the optical wavelength bands through the fiber optic line, thereby supplying electrical power to corresponding selected ones of the power consuming devices,

the power consuming devices [are] being devices having programmed functions, and wherein in the transmitting step, the functions are performed in response to the supplying of electrical power to the corresponding selected ones of the devices.

25. (Amended) [The system according to Claim 24, wherein] An electrical power distribution system, comprising:

a fiber optic line;

multiple power consuming devices; and

multiple control modules interconnected between the fiber optic line and the power consuming devices, each of the control modules being interconnected between the fiber optic line and one of the power consuming devices, and each of the control modules being operative to select the respective power consuming device for supplying electrical power thereto in response to one of multiple optical wavelength bands transmitted through the fiber optic line, each of the optical wavelength bands causing one of the control modules to select the respective power consuming device for supplying electrical power thereto,

the multiple optical wavelength bands [are] being transmitted singly through the fiber optic line.

27. (Amended) [The system according to Claim 26, further comprising] An electrical power distribution system, comprising:

a fiber optic line;

multiple power consuming devices;

multiple control modules interconnected between the fiber optic line and the power consuming devices, each of the control modules being interconnected between the fiber optic line and one of the power consuming devices, and each of the control modules being operative to select the respective power consuming device for supplying electrical power thereto in response to one of multiple optical wavelength bands transmitted through the fiber optic line, each of the optical wavelength

bands causing one of the control modules to select the respective power consuming device for supplying electrical power thereto; and

multiple tunable filters and a first optical coupler interconnected to the fiber optic line, the first optical coupler receiving separate optical wavelength bands from the multiple tunable filters.

30. (Amended) [The system according to Claim 29, wherein] An electrical power distribution system, comprising:

a fiber optic line;

multiple power consuming devices;

multiple control modules interconnected between the fiber optic line and the power consuming devices, each of the control modules being interconnected between the fiber optic line and one of the power consuming devices, and each of the control modules being operative to select the respective power consuming device for supplying electrical power thereto in response to one of multiple optical wavelength bands transmitted through the fiber optic line, each of the optical wavelength bands causing one of the control modules to select the respective power consuming device for supplying electrical power thereto, the multiple optical wavelength bands being transmitted simultaneously through the fiber optic line; and

an optical coupler interconnected to the fiber optic line, the optical coupler receiving separate optical wavelength bands from multiple lasers, at least one of the multiple lasers [is] being a tunable laser.

39. (Amended) [The system according to Claim 24, wherein] An electrical power distribution system, comprising:

a fiber optic line;

multiple power consuming devices; and

multiple control modules interconnected between the fiber optic line and the power consuming devices, each of the control modules being interconnected between the fiber optic line and one of the power consuming devices, and each of the control modules being operative to select the respective power consuming device for supplying electrical power thereto in response to one of multiple optical wavelength bands transmitted through the fiber optic line, each of the optical wavelength bands causing one of the control modules to select the respective power consuming device for supplying electrical power thereto,

the power consuming devices [are] being data storage devices.

40. (Amended) [The system according to Claim 24, wherein] An electrical power distribution system, comprising:

a fiber optic line;

multiple power consuming devices; and

multiple control modules interconnected between the fiber optic line and the power consuming devices, each of the control modules being interconnected between the fiber optic line and one of the power consuming devices, and each of the control modules being operative to select the respective power consuming device for supplying electrical power thereto in response to one of multiple optical wavelength bands transmitted through the fiber optic line, each of the optical wavelength bands causing one of the control modules to select the respective power consuming device for supplying electrical power thereto,

the power consuming devices [are] being devices having programmed functions, each of the devices performing its respective function in response to electrical power supplied thereto.

The Examiner is hereby requested to telephone the undersigned attorney of record at 972/516-0030 if such would further or expedite the prosecution of the instant application.

Respectfully submitted,

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I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, Washington, D.C., 20231,

on August 5, 2002

Diane Sutton